



Climate change and occupational safety and health: Establishing a preliminary framework

Author(s): Schulte PA, Chun H
Year: 2009
Journal: Journal of Occupational and Environmental Hygiene. 6 (9): 542-554

Abstract:

The relationship between global climate change and occupational safety and health has not been extensively characterized. To begin such an effort, it may be useful to develop a framework for identifying how climate change could affect the workplace; workers; and occupational morbidity, mortality, and injury. This article develops such a framework based on a review of the published scientific literature from 1988-2008 that includes climatic effects, their interaction with occupational hazards, and their manifestation in the working population. Seven categories of climate-related hazards are identified: (1) increased ambient temperature, (2) air pollution, (3) ultraviolet exposure, (4) extreme weather, (5) vector-borne diseases and expanded habitats, (6) industrial transitions and emerging industries; and (7) changes in the built environment. This review indicates that while climate change may result in increasing the prevalence, distribution, and severity of known occupational hazards, there is no evidence of unique or previously unknown hazards. However, such a possibility should not be excluded, since there is potential for interactions of known hazards and new conditions leading to new hazards and risks.

Source: <http://dx.doi.org/10.1080/15459620903066008>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Solar Radiation, Temperature, Other Exposure, Other Exposure

Air Pollution: Interaction with Temperature, Ozone, Particulate Matter

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones

Temperature: Extreme Heat, Fluctuations

Other Exposure: radon

Geographic Feature:

resource focuses on specific type of geography

Rural, Urban

Climate Change and Human Health Literature Portal

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Cancer, Infectious Disease, Injury, Mental Health/Stress, Morbidity/Mortality, Other Health Impact

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: General Foodborne/Waterborne Disease

Vectorborne Disease: General Vectorborne, Mosquito-borne Disease, Tick-borne Disease

Mosquito-borne Disease: General Mosquito-borne Disease

Tick-borne Disease: General Tick-borne Disease

Other Health Impact: heat stress; heatstroke

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Workers

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content